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Serial No.: 10/750,989

IN THE CLAIMS:

Please amend the claims as follows:

1. (currently amended) An active splitter for splitting a received input signal into a plurality of split output signals, the active splitter comprising:

a plurality of active circuits connected in parallel that produce the plurality of split output signals from the received input signal, wherein each active circuit of the plurality of active circuits is a voltage follower and produces a corresponding split output signal from the plurality of split output signals that is substantially similar to the received input signal; and

a controller in signal communication with the plurality of active circuits for powering up and down the active circuits for forming one or more desired signal distribution paths from an input signal-carrying input to one or more output signal-carrying outputs.

2. (canceled)

PN ² ~~3~~ (currently amended) The active splitter of claim 1 ² ~~[[2]]~~, wherein the voltage follower includes an emitter follower.

³ ~~4~~ (previously presented) The active splitter of claim ² ~~3~~, wherein the emitter follower includes a bipolar transistor.

⁴ ~~5~~ (previously presented) The active splitter of claim ² ~~3~~, wherein the emitter follower includes a Darlington pair transistor.

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⁵/~~8~~. (currently amended) The active splitter of claim 1 [[2]], wherein the voltage follower includes a source follower.

⁶/~~7~~. (previously presented) The active splitter of claim ⁵/~~6~~, wherein the source follower includes a Field Effect Transistor ("FET") transistor.

⁷/~~8~~. (previously presented) The active splitter of claim ⁶/~~7~~, wherein the FET transistor is a MOFSET transistor.

⁸/~~9~~. (previously presented) The active splitter of claim ⁶/~~7~~, wherein the FET transistor is a CMOS transistor.

⁹/~~10~~. (currently amended) The active splitter of claim 1 [[2]], wherein the voltage follower includes a differential amplifier.

¹⁰/~~11~~. (previously presented) The active splitter of claim 1, wherein the controller communicates with the plurality of active circuits for controlling the electrical characteristics of the plurality of active circuits.

12. (canceled)

¹⁰/~~11~~ ¹¹/~~12~~. (original) The active splitter of claim ¹⁰/~~11~~, wherein the controller is in signal communication with a plurality of switches in signal communication with the plurality of active

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circuits, wherein each switch of the plurality of switches is capable of switching a corresponding active circuit of the plurality of active circuits to a state of ON or OFF in response to a control signal from the controller.

14. (canceled)

¹²
~~18~~. (original) The active splitter of claim 1, further including a first gain stage in signal communication with the plurality of active circuits, wherein the first gain stage receives the received input signal, produces an amplified signal from the received input signal, and passes the amplified signal to the plurality of active circuits.

¹³
~~16~~. (previously presented) The active splitter of claim ¹²~~18~~, wherein the first gain stage includes at least one first gain stage active circuit that amplifies the received input signal.

¹⁴
~~17~~. (previously presented) The active splitter of claim ¹³~~16~~, wherein the at least one first gain stage active circuit includes a common-emitter amplifier.

¹⁵
~~18~~. (previously presented) The active splitter of claim ¹⁴~~17~~, wherein the common-emitter amplifier includes a bipolar transistor.

¹⁶
~~19~~. (previously presented) The active splitter of claim ¹⁵~~18~~, wherein the common-emitter amplifier includes a Darlington pair transistor.

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¹⁷~~20~~. (previously presented) The active splitter of claim ¹³~~16~~, wherein the at least one first gain stage active circuit includes a common-source amplifier.

¹⁸~~21~~. (previously presented) The active splitter of claim ¹⁷~~20~~, wherein the common-source amplifier includes a Field Effect Transistor ("FET") transistor.

¹⁹~~22~~. (previously presented) The active splitter of claim ¹⁸~~21~~, wherein the FET transistor is a MOSFET transistor.

²⁰~~23~~. (previously presented) The active splitter of claim ¹⁸~~21~~, wherein the FET transistor is a CMOS transistor.

²¹~~24~~. (previously presented) The active splitter of claim ¹³~~16~~, wherein the at least one first gain stage active circuit includes a differential amplifier.

²²~~25~~. (previously presented) The active splitter of claim ¹³~~16~~, wherein the controller is in signal communication with the first gain stage for controlling the at least one first gain stage active circuit.

²³~~26~~. (original) The active splitter of claim ²²~~25~~, wherein the controller is in signal communication with the plurality of active circuits for controlling the electrical characteristics of the plurality of active circuits.

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27. (canceled)

²⁴
~~28.~~ (original) The active splitter of claim ~~26~~²³, wherein the controller is in signal communication with a plurality of switches in signal communication with the plurality of active circuits, wherein each switch of the plurality of switches is capable of switching a corresponding active circuit of the plurality of active circuits to a state of ON or OFF in response to a control signal from the controller.

PN
29. (canceled)

²⁵
~~30.~~ (previously presented) The active splitter of claim ~~27~~²³, wherein the controller is capable of switching between the at least one first gain stage active circuit to the plurality of voltage followers.

²⁶
~~31.~~ (previously presented) A method for splitting an input signal into a plurality of output signals, with an active splitter, the method comprising:

receiving the input signal with a plurality of voltage followers connected in parallel;

controlling the plurality of voltage followers by powering one or more of the voltage followers up or down to form one or more desired signal distribution paths from an input signal-carrying input to one or more output signal-carrying outputs; and

producing the plurality of output signals with the plurality of voltage followers in accordance with the one or more formed signal distribution paths, wherein each voltage follower

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of the plurality of voltage followers produces a corresponding output signal of the plurality of output signals that is substantially similar to the input signal.

²⁷
~~32.~~ (original) The method of claim ²⁶~~31~~, further including amplifying the input signal prior to the input signal being received by the plurality of followers.

²⁷
²⁸~~33.~~ (original) The method of claim ~~32~~, further including:
determining the output values produced by the followers with a controller;
PN comparing the output values produced by the followers with the input signal to the followers; and
adjusting the amplification of the input signal with the controller based on the comparison of the output values produced by the followers and the input signal to the followers.

²⁹~~34.~~ (previously presented) An active splitter for splitting an input signal into a plurality of output signals, with an active splitter, the active splitter comprising:

means for receiving the input signal with a plurality of voltage followers connected in parallel;

means for controlling the plurality of voltage followers by powering one or more of the voltage followers up or down to form one or more desired signal distribution paths from an input signal-carrying input to one or more output signal-carrying outputs; and

means for producing the plurality of output signals with the plurality of voltage followers in accordance with the one or more formed signal distribution paths, wherein each voltage

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follower of the plurality of voltage followers produces a corresponding output signal of the plurality of output signals that is substantially similar to the input signal.

³⁰_{35.} (original) The active splitter of claim ²⁹~~34~~, further including means for amplifying the input signal prior to its being split into a plurality of output signals.

³¹_{36.} (original) The active splitter of claim ²⁹~~34~~, further including:
means for determining the output values produced by the followers with a controller;
means for comparing the output values produced by the followers with the input signal to the followers; and

^{PN} means for adjusting the amplification of the input signal with the controller based on the comparison of the output values produced by the followers and the input signal to the followers.

³²_{37.} (previously presented) The active splitter of claim 1 comprising a plurality of switches in signal communication with the controller and with the plurality of active circuits, wherein each switch is capable of switching a corresponding active circuit to a state of ON or OFF in response to a control signal from the controller.

³³_{38.} (previously presented) The active splitter of claim ¹²~~15~~ comprising a plurality of switches in signal communication with the controller and with the plurality of active circuits, wherein each switch is capable of switching a corresponding active circuit to a state of ON or OFF in response to a control signal from the controller.

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³⁴
~~39.~~ (previously presented) The method of claim ²⁶~~31~~ wherein controlling the plurality of voltage followers comprises switching one or more of the voltage followers to a state of ON or OFF.

PN ³⁵
~~40.~~ (previously presented) The active splitter of claim ²⁹~~34~~ wherein the controlling means comprises means for switching one or more of the voltage followers to a state of ON or OFF.

³⁶
~~41.~~ (currently amended) An active splitter for splitting a plurality of received input signals into a plurality of split output signals, the active splitter comprising:

a plurality of first active circuits connected in parallel and producing the plurality of split output signals from a first input signal of the plurality of received input signals, wherein each first active circuit produces a corresponding first split output signal from the plurality of split output signals that is substantially similar to the first input signal; and

a plurality of second active circuits connected in parallel and producing the plurality of split output signals from a second input signal of the plurality of received input signals, wherein each second active circuit produces a corresponding second split output signal from the plurality of split output signals that is substantially similar to the second input signal; and

a first gain stage in signal communication with the plurality of first and second active circuits, wherein the first gain stage receives the plurality of received input signals, produces amplified signals from the plurality of received input signals, and passes the amplified signals to the plurality of first and second active circuits.

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³⁷
~~42.~~ (previously presented) The active splitter of claim ³⁶~~41~~, further including a controller in signal communication with the plurality of first and second active circuits for powering up and down the first and second active circuits for forming one or more desired signal distribution paths from respective inputs carrying the first and second input signals to corresponding outputs carrying the first and second split output signals.

³⁸
~~43.~~ (previously presented) The active splitter of claim ³⁷~~42~~ comprising a plurality of switches in signal communication with the controller and with the plurality of first and second active circuits, wherein each switch is capable of switching a corresponding active circuit to a state of ON or OFF in response to a control signal from the controller.

³⁹
~~44.~~ (previously presented) The active splitter of claim ³⁶~~41~~, further including a controller that is in signal communication with the plurality of first and second active circuits for controlling the electrical characteristics of the plurality of first and second active circuits.

⁴⁰
~~45.~~ (previously presented) The active splitter of claim ³⁹~~44~~, wherein the controller is in signal communication with a plurality of switches in signal communication with the plurality of first and second active circuits, wherein each switch of the plurality of switches is capable of switching a corresponding active circuit of the plurality of first and second active circuits to a state of ON or OFF in response to a control signal from the controller.

46. (canceled)

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⁴¹
~~47.~~ (currently amended) The active splitter of claim ³⁶~~41~~ ⁴¹[[46]], wherein the first gain stage includes at least one first gain stage active circuit that amplifies at least one of the received input signals.

⁴²
~~48.~~ (previously presented) The active splitter of claim ⁴¹~~47~~, further including a controller in signal communication with the first gain stage for controlling the at least one first gain stage active circuit.

PN ⁴³
~~49.~~ (previously presented) The active splitter of claim ⁴²~~48~~ wherein the controller is in signal communication with the plurality of first and second active circuits for controlling the electrical characteristics of the plurality of first and second active circuits.

⁴⁴
~~50.~~ (previously presented) The active splitter of claim ⁴³~~49~~ comprising a plurality of switches in signal communication with the controller and with the plurality of first and second active circuits, wherein each switch is capable of switching a corresponding active circuit to a state of ON or OFF in response to a control signal from the controller.

Please add the following new claims:

⁴⁵
~~51.~~ (new) An active splitter for splitting a received input signal into a plurality of split output signals, the active splitter comprising:

a plurality of active circuits connected in parallel that produce the plurality of split output signals from the received input signal, wherein each active circuit of the plurality of active

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circuits produces a corresponding split output signal from the plurality of split output signals that is substantially similar to the received input signal;

a controller in signal communication with the plurality of active circuits for powering up and down the active circuits for forming one or more desired signal distribution paths from an input signal-carrying input to one or more output signal-carrying outputs; and

a first gain stage in signal communication with the plurality of active circuits, wherein the first gain stage receives the received input signal, produces an amplified signal from the received input signal, and passes the amplified signal to the plurality of active circuits.

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~~52~~. (new) The active splitter of claim ~~51~~, wherein the first gain stage includes at least one first gain stage active circuit that amplifies the received input signal.

PN 47
46
~~53~~. (new) The active splitter of claim ~~52~~, wherein the at least one first gain stage active circuit includes a common-emitter amplifier.

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~~54~~. (new) The active splitter of claim ~~53~~, wherein the common-emitter amplifier includes a bipolar transistor.

49
48
~~55~~. (new) The active splitter of claim ~~54~~, wherein the common-emitter amplifier includes a Darlington pair transistor.

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~~56~~. (new) The active splitter of claim ~~52~~, wherein the at least one first gain stage active circuit includes a common-source amplifier.

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⁵¹
~~57.~~ (new) The active splitter of claim ⁵⁰~~56~~, wherein the common-source amplifier includes a Field Effect Transistor ("FET") transistor.

⁵²
~~58.~~ (new) The active splitter of claim ⁵¹~~57~~, wherein the FET transistor is a MOSFET transistor.

⁵³
~~59.~~ (new) The active splitter of claim ⁵¹~~57~~, wherein the FET transistor is a CMOS transistor.

PN
⁵⁴
~~60.~~ (new) The active splitter of claim ⁴⁶~~52~~, wherein the at least one first gain stage active circuit includes a differential amplifier.

⁵⁵
~~61.~~ (new) The active splitter of claim ⁴⁶~~52~~, wherein the controller is in signal communication with the first gain stage for controlling the at least one first gain stage active circuit.

⁵⁶
~~62.~~ (new) The active splitter of claim ⁵⁵~~61~~, wherein the controller is in signal communication with the plurality of active circuits for controlling the electrical characteristics of the plurality of active circuits.

⁵⁷
~~63.~~ (new) The active splitter of claim ⁵⁶~~62~~, wherein each of the plurality of active circuits is a voltage follower.

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~~64.~~ (new) The active splitter of claim ~~63~~⁵⁷, wherein the controller is capable of switching between the at least one first gain stage active circuit to the plurality of voltage followers.

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~~65.~~ (new) The active splitter of claim ~~62~~⁵⁶, wherein the controller is in signal communication with a plurality of switches in signal communication with the plurality of active circuits, wherein each switch of the plurality of switches is capable of switching a corresponding active circuit of the plurality of active circuits to a state of ON or OFF in response to a control signal from the controller.

PN

60

~~66.~~ (new) The active splitter of claim ~~65~~⁵⁹, wherein each of the plurality of active circuits is a voltage follower.

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~~67.~~ (new) The active splitter of claim ~~51~~⁴⁵ comprising a plurality of switches in signal communication with the controller and with the plurality of active circuits, wherein each switch is capable of switching a corresponding active circuit to a state of ON or OFF in response to a control signal from the controller.

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~~68.~~ (new) The active splitter of claim ~~51~~⁴⁵, wherein each of the plurality of active circuits is a voltage follower.

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⁶³
~~69.~~ (new) The active splitter of claim ⁶²~~68~~, wherein the voltage follower includes an emitter follower.

⁶⁴
~~70.~~ (new) The active splitter of claim ⁶³~~69~~, wherein the emitter follower includes a bipolar transistor.

⁶⁵
~~71.~~ (new) The active splitter of claim ⁶³~~69~~, wherein the emitter follower includes a Darlington pair transistor.

PN ⁶⁶
~~72.~~ (new) The active splitter of claim ⁶²~~68~~, wherein the voltage follower includes a source follower.

⁶⁷
~~73.~~ (new) The active splitter of claim ⁶⁶~~72~~, wherein the source follower includes a Field Effect Transistor ("FET") transistor.

⁶⁸
~~74.~~ (new) The active splitter of claim ⁶⁷~~73~~, wherein the FET transistor is a MOFSET transistor.

⁶⁹
~~75.~~ (new) The active splitter of claim ⁶⁷~~73~~, wherein the FET transistor is a CMOS transistor.

⁷⁰
~~76.~~ (new) The active splitter of claim ⁶²~~68~~, wherein the voltage follower includes a differential amplifier.